U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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LEAD IN AUGUST 1996

Primary refinery production in August was down about 3%, while secondary refinery production was up by nearly 10%. Total production of refined lead, primary plus secondary, through the first 8 months of 1996 was about 1% more than production in same period of 1995. Reported consumption in August increased by about 15% compared with that of July.

According to Platt's Metals Week published quotations, the average North American producer price and the average London Metal Exchange (LME) cash price increased by 0.2% and 4.1%, respectively, in August, following 2 months of decline.

National Defense Stockpile cash disposal (sale) of lead in August 1996 was 1,950 metric tons (2,149 short tons). Sale of lead to date in fiscal year 1996 (October 1995 through August 1996) was 29,968 metric tons (33,034 short tons).

The Environmental Protection Agency (EPA) issued its final rule on "Requirements for Lead-Based Paint Activities in Target Housing and Child-Occupied Facilities." The rule was established, as directed under Title IV of the Toxic Substance Control Act, to ensure that individuals conducting activities involving abatement of lead-based paint hazards are properly trained and certified; that training programs providing instruction in such activities are accredited; and that these activities are conducted ac cording to reliable, effective, and safe work practice standards. Individual States and Indian Tribe s will be allowed to seek authorization, starting October 28, 1996, to administer and enforce the regulations set forth in the rule. Upon authorization by EPA, the administration and enforcement of the regulations will become effective as specified in the particular State and Indian programs. For States and Indian Tribes that do not apply for and receive authorization, EPA will administer and enforce the regulations no later than August 31, 1998.1

Chief Consolidated Mining Co., New York, NY, Akiko Gold Resources, Vancouver, BC, Canada, and a U.S. subsidiary of Korea Zinc Co. Ltd., Seoul, Rep. of Korea, have formed a joint venture (JV) to develop the New Burgin silver-lead-zinc deposit in the Tintic district of Utah. The JV agreement effectively

transfers a 50% interest in this mining district from Chief Consolidated to Akiko Gold (25%) and Korea Zinc (25%). As a result of recent drilling efforts, reserves at New Burgin now total 1.5 million tons, grading 21% lead, 6.7% zinc, and 16.5 ounces per ton silver. Lead production at New Burgin is expected to be in excess of 45,000 tons annually, over a projected life span of 5 years.² The last reported lead mining activity at the Burgin deposit was in 1978.

Exploration work is continuing at the Pend Oreille zinc-lead mining project near Metaline Falls, WA, under the new ownership of Cominco Ltd., Toronto, Canada. Cominco purchased a 100% interest in the mine from RFC Resource Finance Corp., Toronto, Canada, in March 1996. According to Cominco, results of recent exploration indicated excellent potential to increase reserves at the mine; and as a result, the company planned to increase its exploration work in the coming months. Information obtained from previous exploratory work by Inmet Mining Corp., Toronto, Canada, a 73.4% shareholder in RFC, established current ore reserves at Pend Oreille at about 1.2 million tons grading 7.7% zinc and 1.6% lead.³

Peru's State mining and smelting company, Centromin, announced plans to sell the Yauricocha polymetallic mine, Yauyos, Lima Department, as part of its ongoing privatization program. Approximately 350,000 tons of ore are processed annually at the mine, yielding 9,000 tons and 4,000 tons of zinc and lead, respectively. Reserves at Yauricocha total 2.8 million tons, grading 5.3% zinc, 2.8% lead, and significant quantities of copper, silver and gold. 4

¹Federal Register. Lead; Requirements for Lead-Based Paint Activities in Target Housing and Child-Occupied Facilities; Final Rule. (Environmental Protection Agency). V. 61, No. 169, Aug. 29, 1996, pp. 45777-45830.

Northern Miner. Agreement Signed for New Burgin. V. 82, No. 24, Aug. 12, 1996, p. 3.

³Metal Bulletin. Optimism Rides High as Exploratory Work Continues at Pend Oreille. No. 8105, Aug. 19, 1996, p. 6.

⁴Mining Journal, London. Yauricocha Reserve Price Set. No. 8390, Aug. 9, 1996, p. 102.

$\begin{tabular}{ll} TABLE~1\\ SALIENT~LEAD~STATISTICS~IN~THE~UNITED~STATES~1/\\ \end{tabular}$

(Metric tons)

	1995	p/		1996		
	Year total	Jan Aug.	July	Aug.	Jan Aug.	
Production:						
Mine (recoverable)	384,000	257,000	35,600	34,100	285,000	
Primary refinery 2/	374,000	252,000	25,500	24,700	224,000	
Secondary refinery:						
Reported by smelters/refineries	737,000	482,000	78,800	86,300	635,000 3/	
Estimated	193,000	126,000 r/	1,190	1,420	9,650 3/	
Recovered from copper-base scrap e/	15,000	10,000	1,250	1,250	10,000	
Total secondary	945,000	618,000	81,200	89,000	655,000 3/	
Stocks, end of period:						
Primary refineries 2/	XX	XX	19,900	14,200	XX	
Secondary smelters and consumers	XX	XX	46,900	46,800	XX	
Imports for consumption:						
Ore and concentrates (lead content)	2,590	2,540	235	NA	3,120 4/	
Refined metal	264,000	165,000	19,400	NA	142,000 4/	
Consumption:						
Reported	852,000	564,000	64,500 r/	74,600	543,000	
Undistributed e/	522,000	346,000	39,600	45,700	333,000	
Total	1,370,000	910,000	104,000	120,000	876,000	
Exports (lead content):						
Ore and concentrates	65,500	34,500	10,900	NA	13,700 4/	
Materials excluding scrap	57,200	38,600	6,800	NA	57,600 4/	
Ash and residues	8,040	3,080	2,490	NA	9,360 4/	
TEL/TML preparations, based on lead compounds	3,210	2,450	103	NA	537 4/	
Exports (gross weight): Scrap	105,000	65,600		NA	4/	
Platt's Metals Week North American producer						
price (cents per pound)	42.28	41.70	49.48	49.59	48.76	

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

TABLE 2 MONTHLY AVERAGE LEAD PRICES

	North American producer		· F	Sterling
	price	\$/metric ton	exchange rate	
	cents/lb	\$/metric ton	£/metric ton	dollars/£
1995:				
August	42.00	623.23	397.76	1.566796
Average Jan Aug.	41.70	611.39	385.25	1.587279
Year average	42.28	619.00	399.81	1.578176
1996:				
May	50.35	839.76	554.21	1.515236
June	49.85	796.09	516.41	1.541590
July	49.48	783.24	504.34	1.553005
August	49.59	815.23	525.99	1.549882
Average Jan Aug.	48.76	793.05	516.26	1.533444

Source: Platt's Metals Week.

^{1/} Data are rounded to three significant digits, except prices; may not add to totals shown.

^{2/} Data from American Bureau of Metal Statistics, Inc. (ABMS).

^{3/} Includes revised data from previous months.

 $^{4/\}operatorname{Includes}$ data for January-July only; August data not available at time of publication.

TABLE 3 MINE PRODUCTION OF RECOVERABLE LEAD IN THE UNITED STATES 1/

(Metric tons)

	199	5 p/			
	Year total	Jan Aug. r/	July	Aug.	Jan Aug.
Missouri	290,000	242,000 2/	33,400 2/	31,600 2/	264,000 2/
Other States 3/	93,900 2/	18,300	2,190	2,430	20,800
Total	384,000	260,000	35,600	34,100	285,000
Daily average 4/	1,050	1,070	1,150	1,100	1,170

p/ Preliminary. r/ Revised.

- 1/ Data are rounded to three significant digits; may not add to totals shown.
- 2/ Includes Alaska.
- 3/ Includes Colorado, Idaho, Montana, and New York.
- 4/ Based on number of days in period without adjustment for Sundays or holidays.

 ${\bf TABLE~4}$ CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN AUGUST 1996 1/

(Metric tons, gross weight)

	Stocks July 31,	Net		Stocks Aug. 31,
Item	1996	receipts	Consumption	1996
Battery-lead	28,400	93,300	93,800	27,900
Soft lead	W	W	W	W
Drosses and residues	1,240	4,290	4,330	1,200
Other 2/	1,260 r/	4,350	3,600	2,010
Total	30,900	102,000	102,000	31,100
Percent change from preceding month		-0.5	+5.1	+0.6

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other."

TABLE 5 LEAD, TIN, AND ANTIMONY RECOVERED FROM LEAD-BASE SCRAP IN AUGUST 1996 1/

(Metric tons)

Secondary metal content						
Lead	Tin	Antimony				
42,200						
W	W	W				
38,900	11	313				
W	W	W				
86,300	34	554				
	Lead 42,200 W 38,900 W	Lead Tin 42,200 W W 38,900 11 W W 86,300 34				

W Withheld to avoid disclosing company proprietary data; included in "Total."

^{1/} Data are rounded to three significant digits; may not add to totals shown.

 $^{2/\,}Includes\,solder,\,common\,babbitt,\,antimonial\,lead,\,cable\,covering,\,type\,metals,\,and\,other\,lead-base\,scrap\,not\,elsewhere\,classified.$

 $^{1/\,\}mbox{Data}$ are rounded to three significant digits.

^{2/} Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 6 CONSUMPTION OF LEAD IN THE UNITED STATES $\ 1/\$

(Metric tons)

	199:	5		1996			
Uses	Jan Dec. p/	Jan Aug.	July	Aug.	Jan Aug.		
Metal products:							
Ammunition-shot and bullets	52,500	37,500	2,400	4,610	29,000		
Brass and bronze-billet and ingots	6,110	4,170	465	500	4,080		
Cable covering-power and							
communication and calking lead-							
building construction	5,600	3,770	473	645	4,370		
Casting metals	1,240	W	116	113	951		
Pipes, traps, and other extruded							
products	912	635	(2/)	(2/)	(2/)		
Sheet lead	11,100	7,250	855	790	6,500		
Solder	6,250	3,910	773	431	3,940		
Storage batteries, including oxides	700,000	468,000	58,200 r/	66,200	481,000		
Terne metal, type metal, and other							
metal products 3/	5,500	4,680	579	583	4,930		
Total metal products	789,000	530,000	63,900	73,900	534,000		
Other oxides	44,700	30,300	(4/)	(4/)	(4/)		
Miscellaneous uses including gasoline							
additives	18,200	3,850	663 r/	636	8,800		
Total reported	852,000	564,000	64,500	74,600	543,000		
Undistributed consumption e/	522,000	346,000	39,600	45,700	333,000		
Grand total	1,370,000	910,000	104,000	120,000	876,000		

- e/ Estimated. p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Terne metal, type metal, and other metal products."
- $1/\,\textsc{Data}$ are rounded to three significant digits; may not add to totals shown.
- 2/ Withheld to avoid disclosing company proprietary data; included in "Sheet lead."
- 3/ Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.
- 4/ Withheld to avoid disclosing company proprietary data; included in "Miscellaneous uses including gasoline additives."

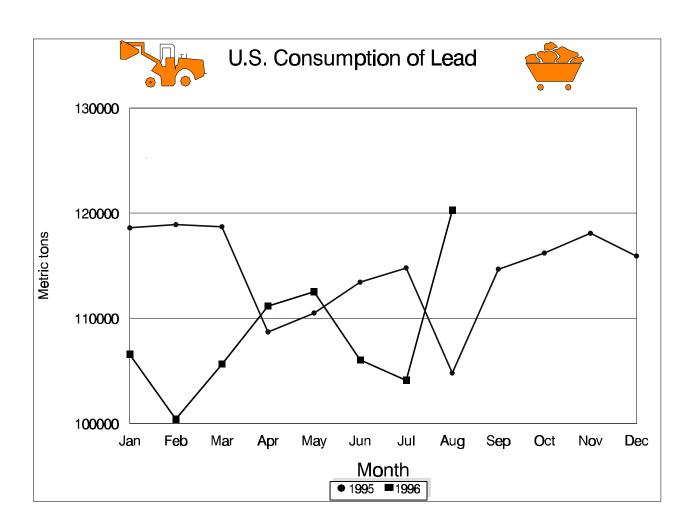


TABLE 7 CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND CONSUMPTION OF LEAD IN AUGUST 1996 1/

(Metric tons, lead content)

	Stocks			Stocks
	July 31,	Net		Aug. 31,
Type of material	1996	receipts	Consumption	1996
Soft lead	14,000	40,800	40,000	14,800
Antimonial lead	28,400	23,400	22,600	29,200
Lead alloys	W	9,830	11,500	W
Copper-base scrap	W	424	424	W
Total	46,900	74,500	74,600	46,800

W Withheld to avoid disclosing company proprietary data; included in "Total."

TABLE 8 CONSUMPTION OF LEAD BY CLASS OF PRODUCT AND TYPE OF MATERIAL IN AUGUST 1996 1/

(Metric tons, lead content)

	Soft	Antimonial	Lead	Copper-base	
Class of product	lead	lead	alloys	scrap	Total
Metal products	39,600	22,600	11,500	424	74,100
Other oxides 2/	W				W
Miscellaneous uses	422	W	W		422
Total	40,000	22,600	11,500	424	74,600

W Withheld to avoid disclosing company proprietary data; included in "Metal products."

TABLE 9 U.S. EXPORTS OF LEAD, BY CLASS 1/

(Metric tons)

	19	95	1996				
	Year total	July	June	July	Jan July		
Lead content:							
Ore and concentrates	65,500	18,000	116	10,900	13,700		
Materials excluding scrap	57,200	4,340	4,980	6,800	57,600		
Ash and residues	8,040		266	2,850	9,360		
TEL/TML preparations, based							
on lead compounds	3,210	111	77	103	537		
Total	134,000	22,500	5,440	20,600	81,200		
Gross weight: Scrap	105,000	7,880					

^{1/} Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} Includes ceramic products, glass, other pigments and chemicals, and paints.

TABLE 10
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN 1/

(Metric tons, lead content)

		Genera	al imports				Imports for consumption				
	19	995 p/	•	1996		1:	995 p/	•	1996		
Country of origin	Year total	Jan July	June	July	Jan July	Year total	Jan July	June	July	Jan July	
Ore, matte, etc.:											
Australia	1,480	1,480									
Bolivia	759	360		4	282						
Canada	106,000		32,800	32,200	216,000			6	(2/)	2,370	
Mexico	2,380	2,380		1,050	1,440	2,380	2,380		235	625	
Peru	12,800	8,350	790	2,340	9,930	88	88				
Other	984	350		11	133	126	72			122	
Total	124,000	12,900	33,600	35,600	228,000	2,590	2,540	6	235	3,120	
Base bullion:											
Mexico	31					31					
Total	31					31					
Pigs and bars:											
Belgium	25	25				25	25				
Bulgaria	1,910	1,910				1,910	1,910				
Canada	182,000	97,200	11,400	14,200	99,200	182,000	97,200	11,400	14,200	99,200	
Germany	3,140	1,750	14		120	3,140	1,750	14		120	
Mexico	54,300	28,900	3,780	3,360	31,100	54,300	28,900	3,780	3,360	31,100	
Netherlands	42	42				42	42				
Peru	22,100	9,600	400	1,670	11,300	22,100	9,600	400	1,670	11,300	
Sweden	5	5				5	5				
United Arab Emirates	210	168	11	26	109	210	168	11	26	109	
United Kingdom	128	63				128	63				
Venezuela	364	364				364	364				
Other	242	238	39	165	231	242	238	39	165	231	
Total	264,000	140,000	15,600	19,400	142,000	264,000	140,000	15,600	19,400	142,000	
Reclaimed scrap, including											
ash and residues	75	18			159	75	18			159	
Grand total	388,000	153,000	49,200	55,000	370,000	267,000	143,000	15,600	19,600	145,000	
n/ Proliminory		-									

p/ Preliminary.

Source: Bureau of the Census.

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} Less than 1/2 unit.